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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/817,242	03/27/2001	Ricardo Cozar	Q63781	8040

7590 03/31/2003

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EXAMINER

COLON, GERMAN

ART UNIT PAPER NUMBER

2879

DATE MAILED: 03/31/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	09/817,242	COZAR ET AL.	
	Examiner	Art Unit	
	German Colón	2879	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 January 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☒ Claim(s) 6 and 7 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                  | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Response to Amendment***

1. The Amendment, filed on January 29, 2003, has been entered and acknowledged by the Examiner.
2. Addition of claim 9 has been entered.

### ***Claim Objections***

3. Claims 6 and 7 are objected to because of the following informalities:

The Examiner notes that the percentages of the metals corresponding to a chemical composition claimed in claims 6 and 7 do not recite whether such percentages are related to the weight or the number of atoms of said metals. For the purpose of examination, the Examiner considered the percentages by weight of the composition.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-5, 8 and 9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation "the mean expansion coefficient  $\alpha_{20-T}$ " in lines 17-18, and 20-21. There is insufficient antecedent basis for this limitation in the claim.

Claim 1 recites the limitation "the temperature T" in lines 18-19. There is insufficient antecedent basis for this limitation in the claim.

Regarding claims 2-5, 8 and 9, claims 2-5, 8 and 9 are rejected over the reasons stated in the rejection of claim 1 because of their dependency status from claim 1.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claim 6 is rejected under 35 U.S.C. 102(e) as being anticipated by Kim et al. (US 6,229,255).

Kim discloses a shadow mask made of an Fe-Ni alloy having a chemical composition comprising, by weight percent:  $35 \leq \text{Ni} \leq 38$ ;  $0.001 \leq \text{Co} \leq 8$ ; and  $(\text{Mo}, \text{Nb}) \leq 0.1$  (see Col 3, lines 20-24). The Examiner notes that the applicant acknowledges the amount of Ta, W and Zr can be 0%.

8. Claim 6 is rejected under 35 U.S.C. 102(b) as being anticipated by Baudry et al. (US 5,643,697).

Baudry discloses a shadow mask made of an Fe-Ni alloy having a chemical composition comprising, by weight percent:  $35.5 \leq \text{Ni} \leq 37$ ;  $\text{Co} \leq 0.5$ ;  $\text{Cu} \leq 0.1$ ; and  $(\text{Nb}, \text{Mo}) \leq 0.1$  (see Col 2, lines 13-28). The Examiner notes that the applicant acknowledges the amount of Ta, W and Zr can be 0%.

9. Claims 6 and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Misumi et al. (US 4,713,576).

Regarding claim 6, Misumi discloses a shadow mask made of an Fe-Ni alloy having a chemical composition comprising, by weight percent:  $30 \leq \text{Ni} \leq 50$  (see Col. 4, lines 55-56);  $0 \leq \text{Co} \leq 10$  (see Col. 5, line 26); and  $(\text{Nb}, \text{Ta}, \text{Mo}, \text{W}, \text{Zr}) \leq 10$  (see Col. 5, lines 21-24). The Examiner notes that the applicant acknowledges the amount of Cu can be 0%.

Referring to claim 7, claim 7 is rejected over the reasons stated in the rejection of claim 6 above.

#### ***Terminal Disclaimer***

10. The terminal disclaimer filed on January 29, 2003 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of USP 6,420,054 has been reviewed and is accepted. The terminal disclaimer has been recorded.

#### ***Allowable Subject Matter***

11. Claims 1-5, 8 and 9 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action.

12. The following is a statement of reasons for the indication of allowable subject matter:

The Examiner notes that the Prior Art of Record discloses a masking device for a flat-screen CRT, comprising a tensioned shadow mask and a support frame, said tensioned shadow mask and support frame being made of a hardened Fe-Ni alloy.

Regarding claim 1, the references of the Prior Art of Record fail to teach or suggest the combination of the limitations as set forth in claim 1, and specifically comprising the limitation of "below a temperature  $T_1$  the mean expansion coefficient  $\alpha$  of the Fe-Ni alloy of which the support frame is made being greater than the mean expansion coefficient  $\alpha$  of the Fe-Ni alloy of which the shadow mask is made; and above a temperature  $T_1$  the mean expansion coefficient  $\alpha$  of the Fe-Ni alloy of which the support frame is made is less than the mean expansion coefficient  $\alpha$  of the Fe-Ni alloy of which the shadow mask is made".

Referring to claims 2-5, 8 and 9, claims 2-5, 8 and 9 are allowable for the reason given in claim 1, because of their dependency status from claim 1.

### ***Prior Art of Record***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Shoemaker et al., in U.S. Patent No. 4,639,576, discloses a welding electrode comprising specific amounts of Fe, Ni, Co, Cu, Mn, Si, Ta and Zr.

Tai et al., in U.S. Patent No. 5,914,557, discloses a shadow mask frame and mask holders wherein the thermal expansion coefficient of the mask frame and the thermal coefficient of the mask holders are selected to satisfy a specific relationship.

Art Unit: 2879

***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to German Colón whose telephone number is 703-305-5987. The examiner can normally be reached on Monday thru Friday, from 8:30 to 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel can be reached on 703-305-4794. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7382 for regular communications and 703-308-7382 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

  
gc

March 20, 2003



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